Programming Exercise 5.4

Temperature Conversion, v.1.0

Purpose. The purpose of this lab is for you to learn how write a program “from scratch” that takes console keyboard input, performs a simple calculation, and prints nicely formatted console output. It also introduces "Unicode" symbols -- ones that are not part of the alphanumeric sequence or the familiar punctuation symbols on most computers.

Write a program named **`Canada1.py`** to convert from Celsius to Fahrenheit, so that if you ever visit Canada you can figure out what the temperature *really* is.

Requirements.

1. Prompt the user to enter a temperature in degrees Celsius, allowing any number of decimal digits (for example, `32` or `10.21`)

2. Calculate the Fahrenheit equivalent, using the formula shown below.

3. Output the answer to the console screen with a label and with both the unformatted input and formatted output values. Show one decimal digit for the output.

Here's how to calculate Fahrenheit:

$$F = {}^{9}/_{5}\, C + 32$$

Test your program. Here are some useful test points: -40°C is -40°F, 0°C is 32°F, 100°C is 212°F.

Optional Requirement. Add the degree symbol (°) to your output. Here's a hint that might be helpful: `char degreeSymbol = 0xF8;` is “ASCII” code for the degree symbol on Windows systems. It's `0xB0` on the Mac. (Those are ZEROs, not OHs). Use the one that matches your system.

Program I/O. Input: one number from the console keyboard. Output: Echo the input value and print the result of the calculation to the console screen.

Example. For example, with user input in blue:

```
What's the temperature in Celsius? 100.001
100.001 Celsius equals 212.0 Fahrenheit
```